TITLE: Compound Classifier for Pattern
Recognition Applications
INVENTOR(S): Driggs, et al.
ATTORNEY DOCKET NO.: LM(F)5791

5791LM

5791LM1

Fig.1
PRIOR ART

TYPICAL MAX-VALUE CRITERIA:
$(index, value) = max(1-D/D_{max})$

• CLASS ID = INDEX

• CONFIDENCE = VALUE
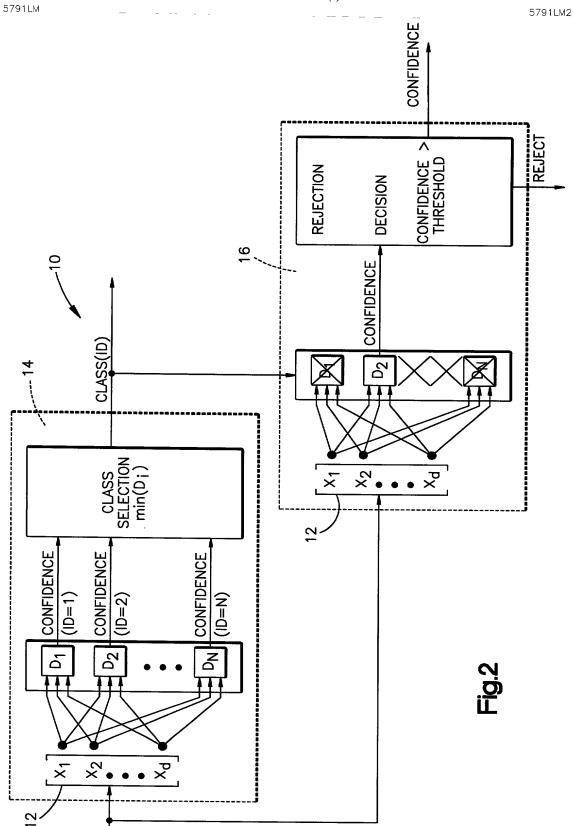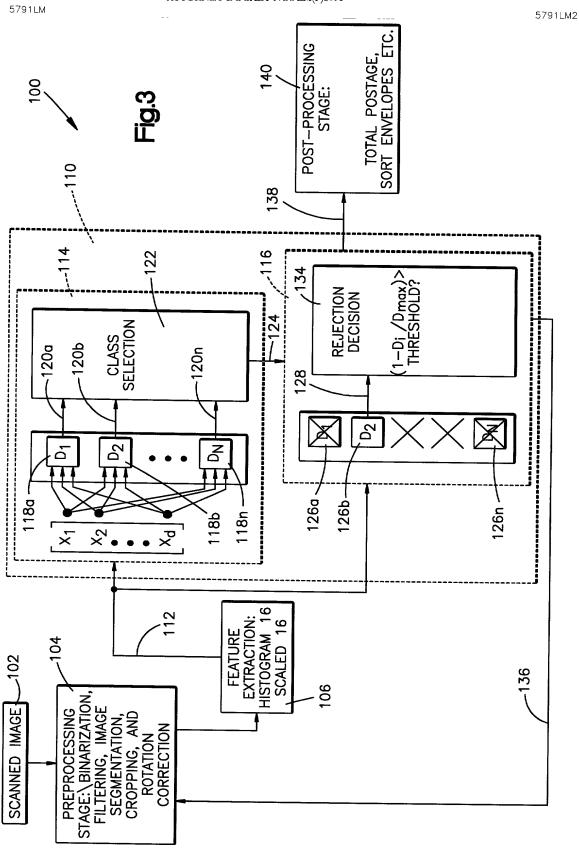
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Fig.2

Fig.3

100

SCANNED IMAGE — 102

PREPROCESSING STAGE: BINARIZATION, FILTERING, IMAGE SEGMENTATION, CROPPING, AND ROTATION CORRECTION — 104

FEATURE EXTRACTION: HISTOGRAM 16 SCALED 16 — 106

112

110

114

122

CLASS SELECTION

120a
120b
120n

X_1
X_2
X_d

D_1 — 118a
D_2 — 118b
D_N — 118n

$\bullet \bullet \bullet$

124

116

134

REJECTION DECISION

$(1 - D_i / D_{max}) >$ THRESHOLD?

128

D_1 — 126a
D_2 — 126b
D_N — 126n

136

138

POST-PROCESSING STAGE: — 140

TOTAL POSTAGE, SORT ENVELOPES ETC.

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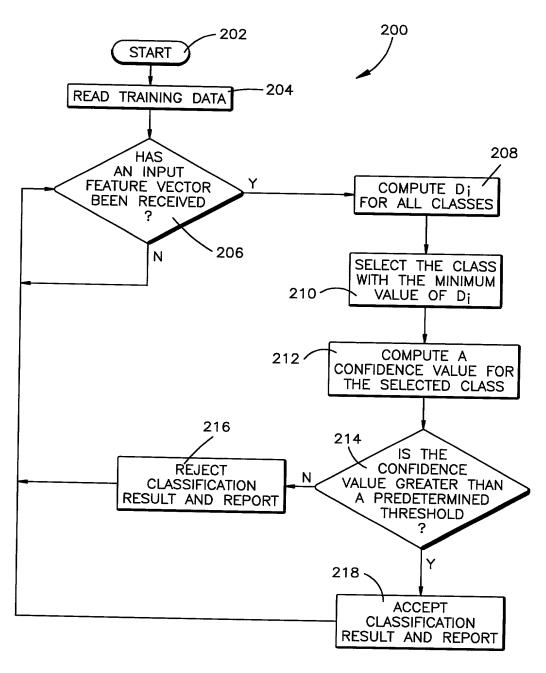5791LM   5791LM4

START — 202

READ TRAINING DATA — 204

200

HAS AN INPUT FEATURE VECTOR BEEN RECEIVED ? — 206

COMPUTE D_i FOR ALL CLASSES — 208

SELECT THE CLASS WITH THE MINIMUM VALUE OF D_i — 210

COMPUTE A CONFIDENCE VALUE FOR THE SELECTED CLASS — 212

IS THE CONFIDENCE VALUE GREATER THAN A PREDETERMINED THRESHOLD ? — 214

REJECT CLASSIFICATION RESULT AND REPORT — 216

ACCEPT CLASSIFICATION RESULT AND REPORT — 218

Fig.4

TITLE: Compound Classifier for Pattern Recognition
Applications
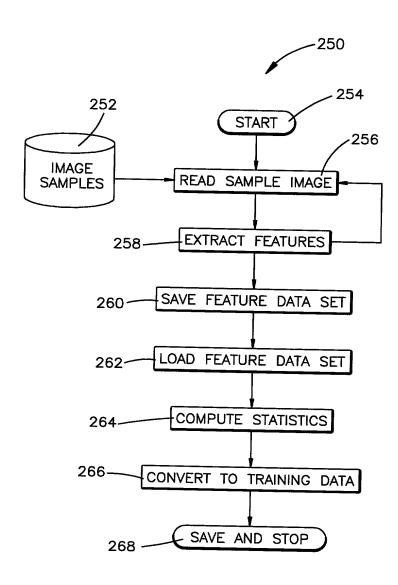INVENTOR(S): Driggs, et al.
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Fig.5